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Proposed Maximum Residue Limit PMRL2014-82

Metalaxyl

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Under the authority of the *Pest Control Products Act*, Health Canada's Pest Management Regulatory Agency (PMRA) is proposing to establish maximum residue limits (MRLs) for metalaxyl (as supported by metalaxyl-M crop field trials) on various plant commodities to permit the import and sale of foods containing such residues.

Metalaxyl-M is a fungicide currently registered in Canada for use on various commodities.

The PMRA must determine the quantity of residues that are likely to remain in or on the imported food commodities when metalaxyl-M is used according to label directions in the exporting country, and that such residues will not be a concern to human health. This quantity is then legally established as an MRL on the corresponding imported commodity. An MRL applies to the identified raw agricultural food commodity as well as to any processed food product that contains it, except where separate MRLs are specified for the raw agricultural commodity and a processed product made from it.

Consultation on the proposed MRLs for metalaxyl is being conducted via this document (see Next Steps, the last section of this document). A summary of the field trial data used to support the proposed MRLs can be found in Appendix I.

To comply with Canada's international trade obligations, consultation on the proposed MRLs is also being conducted internationally by notifying the World Trade Organization, as coordinated by the Standards Council of Canada.

The proposed MRLs, to replace or be added to the MRLs already established for metalaxyl-M, are as follows.

Table 1 Proposed Maximum Residue Limits for Metalaxyl

Common Name	Residue Definition	MRL (ppm)[1]	Food Commodity
Metalaxyl	*N*-(2,6-dimethylphenyl)-*N*-(methoxyacetyl)-DL-alanine methyl ester including metabolites that can be converted to the 2,6-dimethylaniline moiety, each expressed as metalaxyl equivalents	27	Herbs, dried (Crop Group 19A)
		15	Herbs, fresh (Crop Group 19A); leafy *Brassica* greens (Crop Subgroup 5B)
		10	Strawberries[2]
		4.0	Cranberries
		3.0	Bushberry (Crop Subgroup13-07B)[3]
		2.0	Grapes[4]

Common Name	Residue Definition	MRL (ppm)[1]	Food Commodity
		0.4	Canistels; mangoes; papayas; sapodillas; black sapotes; mamey sapotes; star apples
		0.2	Atemoyas, custard apples; sugar apples; starfruits
		0.1	Pineapples; fuzzy kiwifruit
		0.05	Globe artichokes

1 ppm = parts per million
2 This MRL is proposed to replace the currently specified MRL of 0.4 ppm
3 This MRL is proposed to replace the currently specified MRL of 2.0 ppm
4 This MRL is proposed to replace the currently specified MRL of 1.0 ppm

MRLs are proposed for each commodity included in the listed crop groupings in accordance with the Residue Chemistry Crop Groups webpage in the Pesticides and Pest Management section of Health Canada's website.

MRLs established in Canada may be found using the Maximum Residue Limit Database on the Maximum Residue Limits for Pesticides webpage. The database allows users to search for established MRLs, regulated under the *Pest Control Products Act*, both for pesticides or for food commodities.

International Situation and Trade Implications

MRLs may vary from one country to another for a number of reasons, including differences in pesticide use patterns and the locations of the field crop trials used to generate residue chemistry data.

Table 2 compares the MRLs proposed for metalaxyl in Canada with corresponding American tolerances and Codex MRLs.[1] American tolerances are listed in the Electronic Code of Federal Regulations, 40 CFR Part 180, by pesticide. A listing of established Codex MRLs is available on the Codex Alimentarius Pesticide Residues in Food website, by pesticide or commodity.

1 The Codex Alimentarius Commission is an international organization under the auspices of the United Nations that develops international food standards, including MRLs.

Table 2 Comparison of Canadian MRLs, American Tolerances and Codex MRLs (where different)

Food Commodity	Canadian MRL (ppm)	American Tolerance[1] (ppm)	Codex MRL (ppm)
Herbs, dried	27	55	Not established
Herbs, fresh	15	8.0	Not established
Leafy Brassica greens	15 (Crop Subgroup 5B)	5.0 (mustard greens)	Not established
Bushberry (Crop Subgroup 13-07B)	3.0	2.0	Not established
Grapes	2.0	2.0	1.0

[1] For grapes and mustard greens, the American tolerances are captured under metalaxyl while for all other listed crops/crop groups, the American tolerances are captured under mefenoxam (metalaxyl-m)

Next Steps

The PMRA invites the public to submit written comments on the proposed MRLs for metalaxyl up to 75 days from the date of publication of this document. Please forward your comments to Publications (see the contact information on the cover page of this document). The PMRA will consider all comments received before making a final decision on the proposed MRLs. Comments received will be addressed in a separate document linked to this PMRL. The established MRLs will be legally in effect as of the date that they are entered into the Maximum Residue Limit Database.

Appendix I

Summary of Field Trial Data Used to Support the Proposed MRLs

Residue data for metalaxyl-M in various crops were submitted to support the maximum residue limits on imported crops. In addition, previously reviewed residue data from field trials conducted on some crops were re-assessed in the framework of this petition. Processing studies in treated apricot, grape, and plum were also re-assessed to determine the potential for concentration of residues of metalaxyl-M into processed commodities.

Maximum Residue Limit(s)

The recommendation for maximum residue limits (MRLs) for metalaxyl-M was based upon the residues observed in crop commodities treated according to label directions, or to exaggerated rates in some cases, in the exporting country, and the guidance provided in the OECD MRL Calculator. Table A1 summarizes the residue data used to calculate the proposed MRLs for imported crops.

Table A1 Summary of Field Trial and Processing Data Used to Support Maximum Residue Limits (MRLs)

Commodity	Application Method/ Total Application Rate (g a.i./ha)	Preharvest Interval (days)	Residues (ppm)		Experimental Processing Factor
			Min	Max	
Chives, fresh	Soil incorporation & soil directed / 4480	19	1.2	7.4	-
Chives, dried	Soil incorporation & soil directed / 4480	19	17	22	-
Basil, fresh	Soil incorporation & soil directed / 4480	21-23	0.74	3.6	-
		14	0.88	1.3	
Basil, dried	Soil incorporation & soil directed / 4480	14	6.2	11.4	8
Kiwifruits	Soil directed / 1960	7	<0.05	<0.05	-
Papayas	Soil directed / 3360 Trunk and Fruit / 8736	1	<0.05	0.08	-
Strawberries	Soil & foliar broadcast / 3360	0	<0.05	4.4	-
Cranberries	Soil & foliar spray / 5880	45-47	0.07	3.8	-
Star fruits	Soil drench / 3360	28-29	<0.05	0.09	-
Sugar apples	Soil drench / 6720	18-27	<0.05	0.13	-

Commodity	Application Method/ Total Application Rate (g a.i./ha)	Preharvest Interval (days)	Residues (ppm)		Experimental Processing Factor
			Min	Max	
Pineapples	Pre-plant dip / 1120	481-604	<0.05	<0.05	-
Globe artichokes	Seed treatment / 62 mg a.i./100 kg seed Soil / 1120	203	<0.05	<0.05	-
Blueberries	Soil / 8120	0	<0.05	1.6	-
Grapes	Soil / 6180	57-67	<0.05	0.08	1.3, raisin
	Foliar / 896	66	0.07	1.4	
Mustard greens	Soil / 2240 Foliar / 806	7	0.80	8.7	-

Following the review of all available data, MRLs as proposed in Table 1 are recommended to cover residues of metalaxyl-M. Residues of metalaxyl-M in these imported crop commodities at the proposed MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.